6ME6

Beam Power Tube

T12 NOVAR TYPE

P_b = 30 W **Overload P_b = 200 W**

Electrical Characteristics — Bogey Values

Heater Voltage, ac or dc	E_h	6.3	V
Heater Current	I_h	2.3	A
Direct Interelectrode Capacitances:[a]			
Grid No. 1 to plate	c_{g1-p}	0.6	pF
Input: G1 to (K, G3, G2, H)	c_i	22	pF
Output: P to (K, G3, G2, H)	c_o	11	pF

For the following characteristics, see Conditions below:

Amplification Factor (Triode Connection)[b]	μ	–	–	3.5[c]	
Plate Resistance (Approx.)	r_p	–	–	5800	Ω
Transconductance	gm	–	–	9600	μmho
DC Plate Current	I_b	–	580[d]	130	mA
DC Grid-No. 2 Current	I_{c2}	–	40[d]	2.8	mA
Cutoff DC Grid-No. 1 Voltage for I_b = 1 mA	$E_{c1(co)}$	–125	–	–44	V
Conditions:					
Heater Voltage	E_h	←	6.3	→	V
Peak Positive-Pulse Plate Voltage[e]	e_{bm}	5000	–	–	V
DC Plate Voltage	E_b	–	55	175	V
DC Grid-No. 3 Voltage	E_{c3}	0	30	30	V
DC Grid-No. 2 Voltage	E_{c2}	125	125	125	V
DC Grid No. 1 Voltage	E_{c1}		0	–25	V

Mechanical Characteristics

Dimensional Outline	JEDEC No. 12-117
Envelope	JEDEC T-12
Top Cap	Small (JEDEC C1-1)
Base	Large-Button Novar 9-Pin with Exhaust Tip (JEDEC E9-88)
Terminal Connections (See *TERMINAL DIAGRAM*)	JEDEC 9QL
Type of Cathode	Coated Unipotential
Operating Position	Any

Maximum Ratings — Design-Maximum Values[f]

For operation as a Horizontal-Deflection-Amplifier Tube in a 525-line, 30-frame system.

DC Plate Supply Voltage	E_{bb}	990	V
Peak Positive-Pulse Plate Voltage[g]	e_{bm}	7500	V
Peak-Negative-Pulse Plate Voltage	$-e_{bm}$	1100	V

DC Grid-No. 3 Voltage[h]	E_{c3}	75	V
DC Grid-No. 2 (Screen-Grid) Voltage	E_{c2}	220	V
Peak Negative-Pulse Grid-No. 1 (Control-Grid) Voltage	$-e_{c1m}$	330	V
Heater-Cathode Voltage:			
Peak	e_{hkm}	±200	V
Average	E_{hk}	100	V
Heater Voltage	E_h	5.7 to 6.9	V
Cathode Current:			
Peak	i_{km}	1200	mA
Average	$I_{k(av)}$	350	mA
Grid-No. 2 Input	P_{g2}	5	W
Plate Dissipation[j]	P_b	30	W
Temporary Overload Plate Dissipation[k]:	P_b	200	W
Envelope Temperature (at hottest point on envelope surface)	T_E	250	°C

Maximum Circuit Values

Grid-No. 1-Circuit Resistance:	$R_{g(ckt)}$		
Cathode Bias (with min. R_K = 100 Ω		1.0	megohm
Grid-leak Bias (with signal peak clamped to zero bias)		10.0	megohms
Fixed Bias (where positive grid current is not drawn)		0.47	megohm

a Measured without external shield in accordance with the current issue of EIA Standard RS-191B.

b With grid No. 3 and grid No. 2 connected, respectively, to cathode and plate at socket.

c Conditions: $E_b = E_{c2} = 125$ V, $E_{c1} = -25$ V.

This value can be measured by a method involving a recurrent waveform such that the Maximum Ratings of the tube will not be exceeded.

e Under pulse-duration condition specified in *Footnote* **g**.

f As defined in the current issue of EIA Standard RS-239A.

g This rating is applicable when the duration of the voltage pulse does not exceed 15% of one horizontal scanning cycle. In a 525-line, 30-frame system, 15% of one scanning cycle is 10 μs.

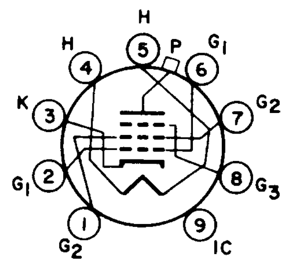
h In horizontal-deflection-amplifier service, a positive voltage should be applied to grid No. 3 to reduce interference from "snivets", which may occur in both vhf and uhf television receivers, and to increase power output. A typical value is 30 V.

j An adequate bias resistor or other means is required to protect the tube in the absence of excitation.

k Total continuous or accumulated time not to exceed 40 seconds.

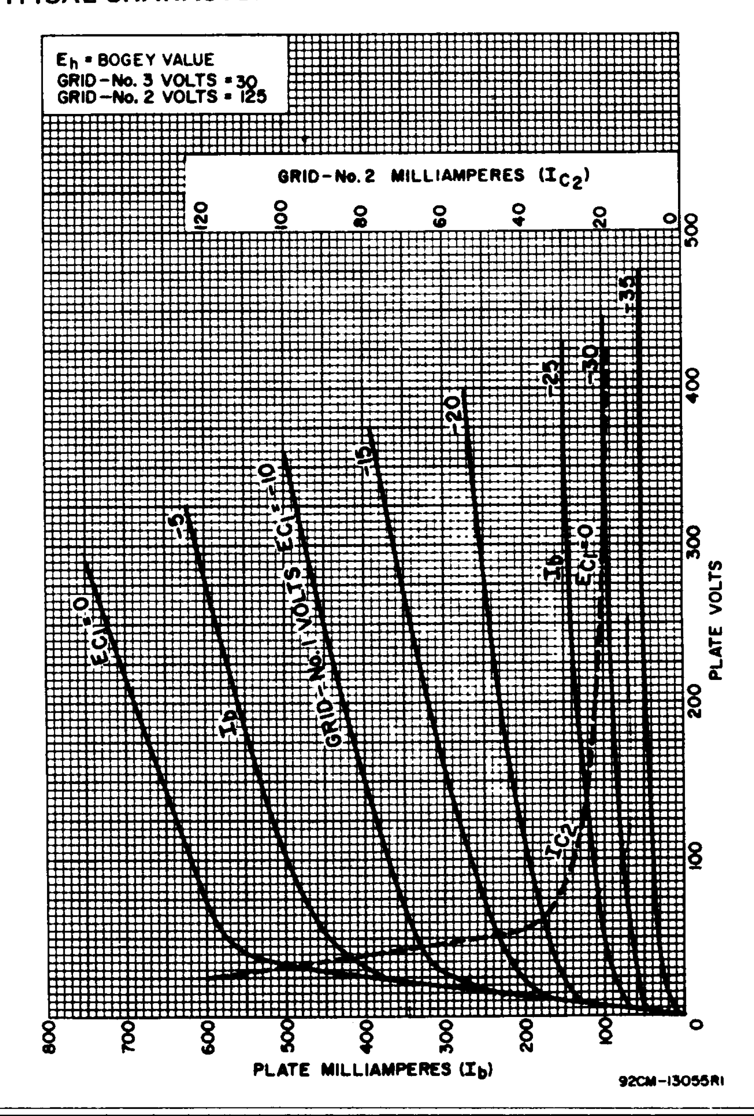
TERMINAL DIAGRAM (BOTTOM VIEW)

Pin 1 - Grid No. 2
Pin 2 - Grid No. 1
Pin 3 - Cathode
Pin 4 - Heater
Pin 5 - Heater

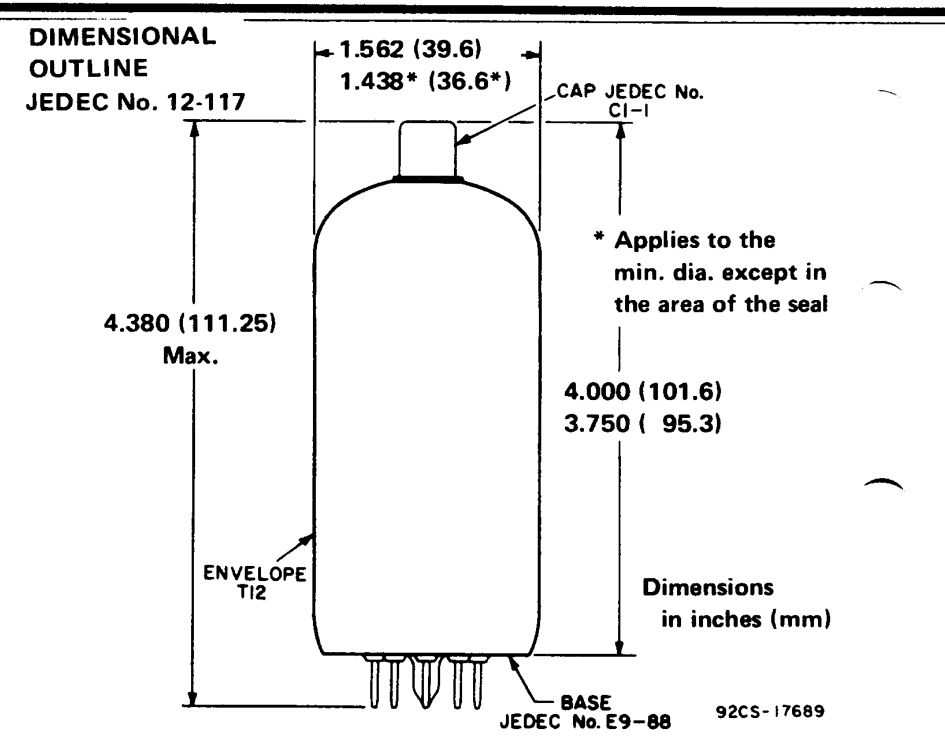


Pin 6 - Grid No. 1
Pin 7 - Grid No. 2
Pin 8 - Grid No. 3
Pin 9 - Do Not Use
Top Cap - Plate

TYPICAL CHARACTERISTICS



DIMENSIONAL OUTLINE
JEDEC No. 12-117



TYPICAL CHARACTERISTICS

